

To: Clark, Becki[Clark.Beki@epa.gov]
From: Sayles, Gregory
Sent: Sun 1/12/2014 8:26:07 PM
Subject: RE: Followup on West Virginia Chemical Spill sampling results

Welcome to OGWDW, Becki :)

From: Clark, Becki
Sent: Sunday, January 12, 2014 2:51 PM
To: Kavlock, Robert; Flowers, Lynn; Cogliano, Vincent; Perovich, Gina; Deener, Kathleen
Cc: Thomas, Russell; Judson, Richard; Bahadori, Tina; Sayles, Gregory
Subject: Re: Followup on West Virginia Chemical Spill sampling results

Bob,

Ex. 5 - Deliberative

From: Kavlock, Robert
Sent: Sunday, January 12, 2014 2:40:02 PM
To: Flowers, Lynn; Clark, Becki; Cogliano, Vincent; Perovich, Gina; Deener, Kathleen
Cc: Thomas, Russell; Judson, Richard; Bahadori, Tina; Sayles, Gregory
Subject: Re: Followup on West Virginia Chemical Spill sampling results

Have you seen what comptox dug up from the HTS screens? Not much activity in the assays to date. Info was sent around Friday afternoon.

From: Flowers, Lynn
Sent: Sunday, January 12, 2014 1:05:17 PM
To: Clark, Becki; Cogliano, Vincent; Perovich, Gina; Deener, Kathleen; Kavlock, Robert
Subject: Re: Followup on West Virginia Chemical Spill sampling results

Thanks Becki. We have been looking for any available info and I for one have been a bit confused regarding the chemical name given the nonstandard use of the chemical nomenclature system. Thanks for sharing and for the heads up.
Lynn

From: Clark, Becki
Sent: Saturday, January 11, 2014 3:55:18 PM
To: Flowers, Lynn; Cogliano, Vincent; Perovich, Gina; Deener, Kathleen; Kavlock, Robert
Subject: Fw: Followup on West Virginia Chemical Spill sampling results

Folks,
FYI, there is a lot going on from OW on the spill today. The 1 ppm issue/question is likely resolved by now but I wanted you to be aware.

From: Grevatt, Peter

Sent: Saturday, January 11, 2014 2:33:32 PM

To: binetti, victoria; Burneson, Eric; Miller, Wynne; Doyle, Elizabeth

Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Clark, Becki; Travers, David; Stoner, Nancy; Shapiro, Mike

Subject: Re: Followup on West Virginia Chemical Spill sampling results

Thanks. In this sort of situation, we typically defer to CDC/ATSDR on the short-term health value, and given that, I think we're good to go with the draft statement R3 has prepared. Thanks again for all that you and your folks are doing on this!

From: binetti, victoria

Sent: Saturday, January 11, 2014 2:24:49 PM

To: Grevatt, Peter; Burneson, Eric; Miller, Wynne; Doyle, Elizabeth

Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Clark, Becki; Travers, David

Subject: RE: Followup on West Virginia Chemical Spill sampling results

The CDC/ATSDR team has already provided the statement to the WVDHHR and indicated they can use it in press materials. Our CERCLA/Emergency Response folks have gotten a review (and OK) of the proposed statement from Tito (Gilberto) Irizarry in OEM. They are looking to have a complementary EPA statement available for release ASAP, because of the concern and the number of customers impacted.

The 1 ppm number will be a significant benchmark in terms of advisories. At this point, it is the reliable detection limit for the analytic method (and standard) developed by DuPont (whose staff has trained WV DHHR on the method). So it is important to all that there is confidence that this "screening level" is also protective.

Although we can't begin to ballpark the time required for lifting advisories until we see some sampling results from the distribution system, note that this is a large and complex distribution system, so this could take some time. --Vicky

From: Grevatt, Peter

Sent: Saturday, January 11, 2014 1:45 PM

To: binetti, victoria; Burneson, Eric; Miller, Wynne; Doyle, Elizabeth

Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Clark, Becki; Travers, David

Subject: Re: Followup on West Virginia Chemical Spill sampling results

Thanks Vicky. It would be helpful to know whether the CDC/ATSDR statement is draft or final. The R3 draft looks good to me. Betsy, it would be good to have your folks take on the 1PPM value. Becki, please let me know whether you think there are folks in NCEA we might want to touch base with as well. There will be considerable time pressure to finalize the Agency's statement, so whoever we involve will need to be able to respond quickly on this! Thanks, P.G.

From: binetti, victoria

Sent: Saturday, January 11, 2014 12:40:36 PM

To: Burneson, Eric; Miller, Wynne; Doyle, Elizabeth

Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Grevatt, Peter; Clark, Becki; Travers, David

Subject: RE: Followup on West Virginia Chemical Spill sampling results

FYI, CDC/ATSDR have prepared this statement:

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They are looking for a complementary statement from EPA. This is our current Region 3 draft:

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--Vicky

From: binetti, victoria

Sent: Saturday, January 11, 2014 12:29 PM

To: Burneson, Eric; Miller, Wynne; Doyle, Elizabeth

Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Grevatt, Peter; Clark, Becki; Travers, David

Subject: FW: Followup on West Virginia Chemical Spill sampling results

As you likely know, on January 9th, the West Virginia American Water Company has issued a "Do Not Use" advisory for the 200,000 plus customers of their Elk River plant, following a release from a chemical storage terminal (Freedom Industries Etowah Terminal) about 1 ½ miles upstream of their intake. The chemical in question is 4-methylcyclohexanemethanol, a foaming agent used to separate (float) fine coal particles in the coal prep/cleaning process. (MSDS is attached; the Eastman product appears to be a mixture, with MCHM being the predominant chemical.) Colleagues from the West Virginia Department of Health and Human Resources (WVDHHR) have been working with West Virginia American Water Company (WVAWC) to determine best approach to assuring water use can be restored ASAP. DuPont developed an analytic standard, with reliable detection at about 1 ppm, and have trained WVDHHR lab on the same so they can do parallel sampling/analyses with WVAWC. The most recent data available (from Thursday evening) show the concentrations in raw water just above 1 ppm, and finished water at the plant just below 1 ppm. WV DHHR and WVAMC are working on plan to include system flushing (large system, with some areas of distribution as far as 50 miles from plant), and sampling at intake, post-treatment and throughout distribution system, with locations to be determined using hydraulic DS model. The hydraulic model is also being

used to guide the flushing protocol. One issue is that the process time for sampling is reported to be lengthy:

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CDC/ATSDR have provided advice (to WV DHHR) on level that would be protective of public health, at 1 ppm (considering all exposure routes, inhalation, dermal and ingestion), based on very limited toxicological information and assumed chemical properties. (See below.) This seems reasonable, given high LD50 for rats. Because data are so limited, CDC/ATSDR aren't comfortable estimating an acute level. The 1 ppm level has made its way into a WaterISAC report on the incident. EPA will likely be asked for concurrence.

We had limited consultation with Steve Allgeier (OGWDW TSD, Cincinnati), who provided good treatment advice (and is working with others on investigating treatment options) and offered unofficial opinion that 1 ppm seemed reasonable, for short term exposure. Note that WVDHHR and WVAWC are considering a strategies including phased relaxation of restrictions, e.g., from ("Do Not Use" to "Do Not Drink"), and geographically relaxing restrictions as areas are "cleared" (for example, concentrations in the distribution system nearest the treatment plant should decline soonest, as release from plant is controlled). The target of 1 ppm will be used to guide these decisions.

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Additionally, last evening WV Department of Environmental Protection ordered Freedom Industries to empty the remaining 14 tanks on site; 2 of those (holding MCHM) have been emptied, as was the leaking MCHM tank. Those three tanks will also be dismantled to examine structural integrity and potential leakage. The remaining tanks contain raw glycerin, finished glycerin (raw with water), calcium chloride (28%, 35%, and 38%), lignin, RDC777 (road dust control agents), and weak salt. As we learn more, we will share information if there are concerning chemicals in those tanks.

Please call me if you want to discuss (

Ex. 6 - Personal Privacy

) Thanks.--

Vicky

From: Werner, Lora

Sent: Friday, January 10, 2014 7:54 AM

To: Johnson, KarenD; Wright, Dave

Cc: Markiewicz, Karl

Subject: Fw: Followup on West Virginia Chemical Spill sampling results

Fyi

From: Bixler, Dee <Dee.Bixler@wv.gov>

Sent: Friday, January 10, 2014 7:47:39 AM

To: Cseh, Larry (ATSDR/DTHHS/OD); Frazer, Teresa E

Cc: Werner, Lora S. (ATSDR/DCHI/EB); Holler, James S. (Jim) (ATSDR/DTHHS/OD); Murray, Ed (ATSDR/DTHHS/OD); EOC Report (CDC); Haddy, Loretta E; Ibrahim, Sherif M

Subject: RE: Followup on West Virginia Chemical Spill sampling results

Thanks. This has been shared with health incident command, poison control and relevant partners. We greatly appreciate your support through this.

-dee

Danae Bixler, MD, MPH
Director, Infectious Disease Epidemiology
West Virginia Bureau for Public Health

From: Cseh, Larry (ATSDR/DTHHS/OD) [<mailto:loc3@cdc.gov>]
Sent: Fri 1/10/2014 7:09 AM
To: Frazer, Teresa E; Bixler, Dee
Cc: Werner, Lora S. (ATSDR/DCHI/EB); Holler, James S. (Jim) (ATSDR/DTHHS/OD); Murray, Ed (ATSDR/DTHHS/OD); Cseh, Larry (ATSDR/DTHHS/OD); EOC Report (CDC)
Subject: Followup on West Virginia Chemical Spill sampling results

Teresa,

Last night we discussed a screening of 1 ppm, we continue to believe will be protective of public health. The levels reported by American Water for samples collected around 17:00 on January 9, 2014 were between 1.2 and .6 ppm. We do not anticipate any adverse health effects from these levels.

That said because of the odor and not knowing an odor threshold we would also recommend that the system or residents be told to flush their systems until it is no longer observed. ATSDR is willing to continue to support you with data review and consultation as you need.

Larry

CAPT Larry F. Cseh, R.S., MSA
US Public Health Service
Emergency Response Coordinator
ATSDR, DTHHS, ERP

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